

CLAIMS

comprising :

1. Nucleotide sequence ~~corresponding to all or part.~~

a) ~~of the sequence according to SEQ ID No. 3,~~
or

b) ~~of a sequence which hybridizes to the~~
sequence according to a), or

c) ~~of a sequence which has at least 80%~~
homology with a) or b) ^{OR d) A sequence which is a fragment of a)}

2. Nucleotide sequence according to Claim 1,
~~comprising :~~
~~corresponding to all or part.~~

a) ~~of the sequence which stretches from~~
nucleotide 1 to nucleotide 2111, ~~preferably~~
~~from nucleotide 1 to nucleotide 2084 of SEQ~~
ID No. 3, or

b) ~~of a sequence which hybridizes to the~~
sequence according to a), or

c) ~~of a sequence which has at least 80%~~
homology with a) or b) ^{OR d) A sequence which is a fragment of a)}

3. Cellular expression vector, ~~comprising~~ a
sequence according to Claim 2, placed upstream of a DNA
sequence encoding a cytotoxic product.

4. Vector according to Claim 3, characterized in
that the cytotoxic product is a protease and preferably
a subtilisin.

5. Plant cells transformed with a vector according
to Claim 3 ~~or 4.~~

6. ^{A Plant} ~~Plants~~ comprising cells according to Claim 5.

7. ^{A Plant having} ~~Plants~~ with gametophytic male sterility with
inducible fertility, comprising a gene encoding a male-
gamete-specific cytotoxic product.

8. Method for producing plants with gametophytic
male sterility with inducible fertility, comprising:

- the insertion into plants of a line A of a
gene whose expression product is cytotoxic
for the microspores, and

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A1SUB
A2

- the production of plants which do not produce male gametes.

9. Method for producing plants with gametophytic male sterility with inducible fertility according to

5 Claim 8, comprising the steps of:

a) transformation of plants of a line A with a vector according to Claim 3 or 4,

10 b) induction of the fertility of the plants obtained in a) by inhibition of the cytotoxicity of the product,

c) self-fertilization of the fertile plants obtained in b),

d) selection of the plants which do not produce male gametes, derived from c),

15 e) multiplication of the plants obtained in d) by reproduction of steps b) and c).

10. Method for producing plants according to Claim 8 or 9, characterized in that, when the cytotoxic product is a subtilisin, the induction of the fertility
20 consists in applying to the plant an insecticide molecule of the fluorophosphate family.

11. Seeds derived from the hybrid plants obtained by crossing plants of line A, which have gametophytic male sterility with inducible fertility, according to
25 Claim 7, or as obtained by using the method according to one of Claims 8 to 10, with plants of line B of agronomic value.

12. Plants according to Claim 7, or obtained by using a method according to any one of Claims 8 to 10,
30 characterized in that they belong to the Brassicacea family and preferably in that they are rape.

ADD
A3

Add
B2